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Mössbauer and magnetometric studies of the magnetism of quasi-ordered Fe-Al alloys with Ga, v and Mn admixtures

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Abstract

The introduction of additives of Ga, V and Mn (M x,y = 0, 5, 10 at %) to ordered alloys Fe65Al35-Fe65 - y Al35 - x M x,y is aimed at studying the general and specific features of the magnetic characteristics of these alloys as functions of their temperatures (5-300 K) and magnetic fields (up to 5 T). In this work, we discuss the possibiliy of interpreting the combined results from magnetometry and Mössbauer spectroscopy in terms of magnetic phase separation and models of localized magnetic moments. © 2013 Allerton Press, Inc.

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